



### Benefits

- Improve water quality by filtering sediment, nutrients, and pesticides from runoff water before entering sensitive areas (e.g., streams, ponds, sinkholes, wetlands, and other water bodies).
- Produce hay.
- Provide wildlife food and cover.
- Improve habitat for beneficial insects.

### Guidelines

#### Location

- Downslope of managed crop or forage areas that have been treated with fertilizer, manure, and/or pesticides. Filter strips are especially needed adjacent to sensitive areas.
- Install filter strips approximately on the contour.
- Filter strips should be established on slopes not to exceed 10%. The runoff area above the filter strip may be steeper.

#### Width

- Minimum width is 20 feet.
- Width of the filter strip will increase as acres in the watershed increase. Maintain a ratio of drainage area to filter strip area of 50:1 or less.

#### Example:

20' wide filter strip x 1000' long = 20,000 sq. ft.  
20,000 sq. ft. / 43,560 sq. ft./ac. = 0.46 ac.  
Therefore 0.46 ac. x 50 = 23 acs. max. drain. area.

### Vegetation

- For optimum filtering capacity, the first three feet from the crop field edge should be established to native grasses.
- Choose plants based on the desired uses or benefits of the filter strip. Vegetation can vary within the strip. Following is a list of plants commonly used to meet intended functions of a filter strip. The list is only intended as a guide and not to be considered a complete list.

Tall Fescue (KY31)**	50 lbs./ac.	Aug. 15-Oct. 1 Feb. 20-April 1
Reed Canarygrass*	25 lbs./ac.	Aug. 15-Oct. 1 Feb. 20-April 1
Tall Fescue (KY31)	20 lbs./ac.	March 15-May 1
Sericea Lespedeza*	40 lbs./ac.	
Common Bermudagrass*	Seed-10 lbs./ac. or Sprigs-30 bu./ac.	May 10-July 1
Switchgrass***	15 lbs./ac.	Dec. 1-July 1
* High tolerance of sedimentation. May become invasive. ** Moderate tolerance of sedimentation. ***High tolerance of sedimentation. Benefits wildlife nesting cover and restoration of native plant community.		

- Natural herbaceous vegetation that volunteers may be used when the ground cover exceeds 80% and average plant height at maturity exceeds 6 inches.

### Establishment

- Fertilize according to soil test recommendations.
- Use a cultipacker seeder, a no-till drill, grain drill with press wheels, or broadcast and cultipack before and after seeding.
- For quick vegetative establishment, seed 1/2 bushel of cereal rye or wheat or 5 pounds of foxtail millet per acre with the above seeding rates.
- **Temporary cover** can be used as a mulch for establishment of permanent vegetation.

## Filter Strip

- ◇ **Summer annuals** followed by establishment of permanent vegetation in the fall.

foxtail millet	20 lbs./ac.	May 1-July 1
pearl millet	20 lbs./ac.	May 1-July 15
sudangrass	45 lbs./ac.	Apr. 20-July 1

- ◇ **Winter annuals** followed by establishment of permanent vegetation in the spring.

cereal rye	3 bu./ac.	Sept. 15-Nov. 10
winter wheat	3 bu./ac.	Aug. 15-Nov. 1

### Maintenance Items

#### General

- Shallow sheet flow across the filter strip is critical for it to function properly.
- Since filter strips are designed to capture sediment and other pollutants, they must be maintained on a regular basis.
- Avoid using the filter strip as a roadway. If the filter strip must be used for some equipment traffic, the filter strip should be 8 to 10 feet wider than normal.
- Manage grass height to prevent lodging, to slow runoff, and for even flow of runoff water.
- Maintain a minimum height of 4 inches for introduced grasses and 8 inches for switchgrass. Mow or harvest vegetation a minimum of 2 or 3 times per year to promote thick vegetation, unless wildlife is a concern.
- Grazing of vegetative filters should be avoided, unless the area is managed to prevent overgrazing, grazing during wet periods, buildup of manure, and traffic paths. Controlled grazing may be done when the filter area is dry and firm.
- Avoid farming practices that cause furrows along the filter strip that would hinder water entry.
- If moldboard plowing is practiced, turn the soil towards the filter strip.
- Avoid spraying chemicals that would harm filter strip vegetation.

- Evaluate the need to lime and fertilize filter strip when fertilizing the remainder of the field according to soil test recommendations.
- Time all field fertilizer, manure, and/or pesticide applications when rainfall intensity is unlikely to produce runoff.
- Inspect the filter strip after establishment, then regularly for any damage. Damaged areas should be refertilized and reseeded during the next recommended seeding date period.

#### Erosion Control

- Small rills and gullies should be repaired immediately. Small berms or dips constructed across rills or gullies will help reestablish sheet flow.
- Concentrated flow areas should be controlled across filter strips either by installing measures to spread flow across the filter strip or by installing erosion control structures.
- Treat areas of the filter strip when 6 inches of sediment has accumulated. Remove or redistribute accumulated sediment by plowing, disking, grading. Fertilize as necessary before reseeding.
- When control of sedimentation is a concern, the vegetative stem density should be a minimum of one stem per inch.

#### Wildlife

- To protect ground nesting birds, delay grazing or mowing on the filter strip until after August 15. Restrict mowing to no more than once annually.

#### Complementary Practices:

Diversion  
 Field Border  
 Grade Stabilization Structure  
 Grassed Waterway  
 Nutrient Management  
 Pest Management  
 Prescribed Grazing  
 Residue Management  
 Riparian Forest Buffer  
 Water and Sediment Control Basin

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